Muelleria Vol. 11: 97–100 (1998)

Bracteantha palustris (Asteraceae: Gnaphalieae), a New Species in Victoria and Tasmania

C. Flann
c/o National Herbarium of Victoria, Birdwood Avenue, South Yarra, Victoria 3141, Australia.

Abstract

Bracteantha palustris C. Flann *sp. nov.* is described. Its distribution, habitat, conservation status and relationship to other species of *Bracteantha* are discussed. The status of both *B. bicolor* and *B. subundulata* var. *angustifolium* is discussed, and a key to all *Bracteantha* species in south-eastern Australia is provided.

Introduction

The opportunity is taken here to formally describe the entity known as *Bracteantha* sp. aff. *subundulata* (Ross 1996). It is not a recent field discovery but has been segregated as a result of a thorough comparison with *Bracteantha subundulata* (Sch. Bip.) Paul G. Wilson. Field observation and examination of herbarium specimens held at MEL and HO indicate that it is a distinct entity differing from the other species of *Bracteantha* in habitat as well as in morphological characteristics.

Taxonomy

Bracteantha palustris Flann *sp. nov.*

a *B. subundulata* (Sch. Bip.) Paul G. Wilson caule elatiore basin versus glabro, bracteis rasilibus, et in habatitione palustri differt.

Type: Victoria, Saplings Morass Flora and Fauna Reserve, 11 Dec. 1996, *C.Flann 1 & N.G.Walsh* (holotype MEL; isotypes HO, NSW, CANB)

Helichrysum acuminatum var. *angustifolium* DC., *Prod.* 6:188 (1838) (syntypes G, MEL)

Bracteantha sp. aff. *subundulata sensu* J.H. Ross *Cens. Vasc. Pl. Vict.* (1993, 1996).

Perennial herb, 30–100 cm tall. *Rhizomes* branched, horizontal, to 8 mm in diameter. *Stems* simple (rarely 1–2-branched), erect, with arachnoid hairs for 5–15 cm below capitulum, otherwise glabrescent. *Leaves* alternate, sessile, partially stem-clasping, lanceolate-elliptic, basal ones largest, 3–10 cm long, 3–8 mm wide, apex acute, margins entire with shortly spreading to appressed arachnoid hairs, internodes 2–7 cm long. *Capitula* solitary, terminal, heterogamous, 2.5–5.0 cm in diameter. *Involucral bracts* spreading, 8–12-seriate, narrowly elliptic, intermediate bracts longest, not distinctly clawed, 1.0–2.5 cm long, acute, rigidly scarious, golden-yellow, opaque, abaxial surface smooth at apex; outer bracts reflexed at maturity. *Receptacle* flat to slightly concave, 5–9 mm in diameter, smooth or with minute spinose ridges, sometimes with blunt-tipped setae between florets. *Female florets* few in a single discontinuous outer series, sometimes apparently absent, yellow, filiform, corolla 4–8 mm long; Bisexual inner florets, 6–8-seriate, yellow, tubular, corolla 7–8 mm long. *Anthers* ecalcarate, with short tails, apical appendage concave, as wide as the thecae. *Style* bifid, the branches clavate, with one dorsal furrow and with obtuse projections at tip. *Cypselas* oblong, cylindrical, but quadrangular in cross-section, c. 3 mm long, 0.5 mm wide, glabrous, smooth, those of female and bisexual florets similar. *Pappus* yellow, of free, barbellate capillary bristles, 5–8 mm long with a few longer barbs at the tips. (Fig. 1a–e.)

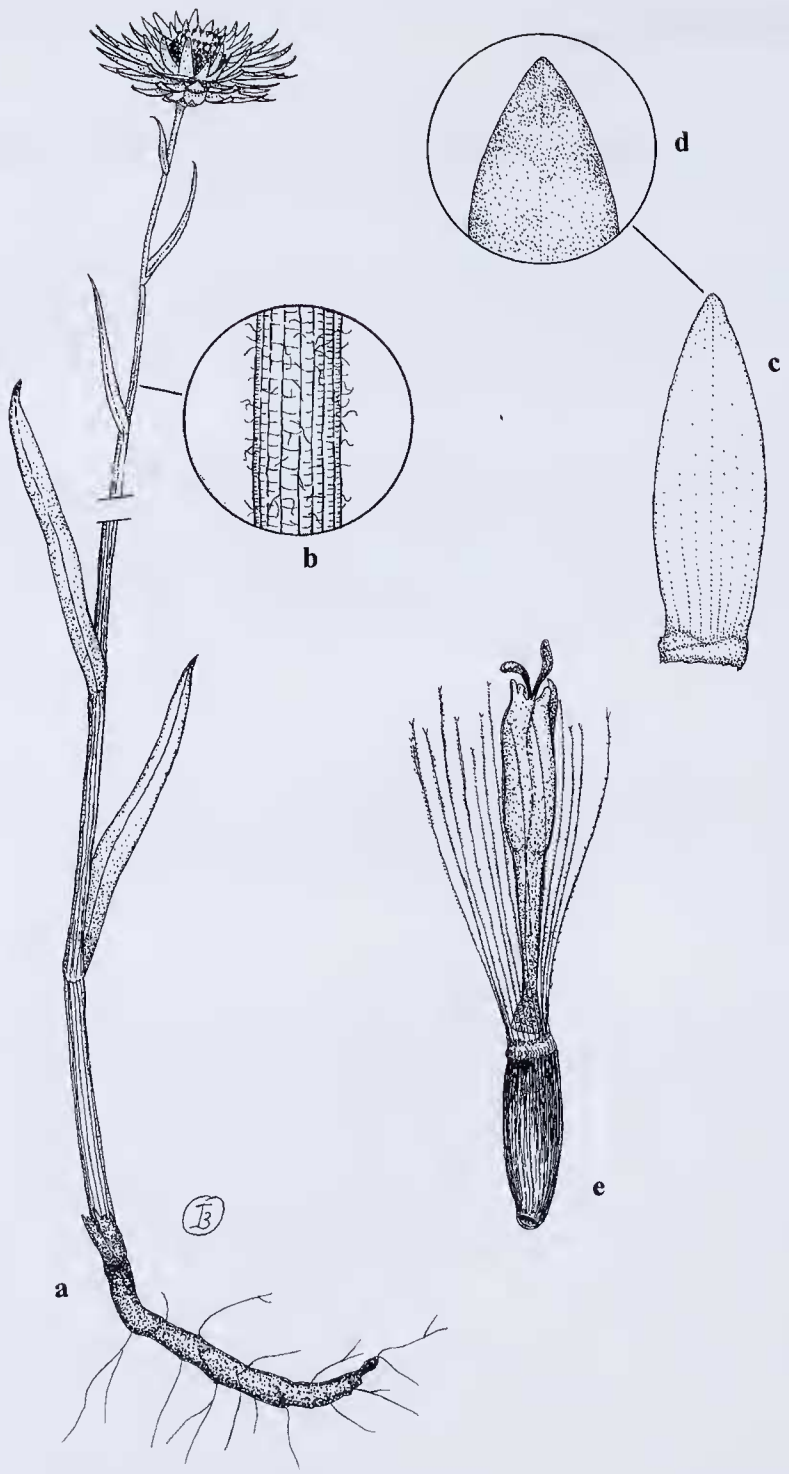

Fig. 1. *Bracteantha palustris* (*Flann 6*): **a** habit, x 0.5; **b** indumentum, x 6; **c** involucral bract, x 3; **d** abaxial surface of bract apex, x 9; **e** (*A.C. Beauglehole 17153*): **e** mature fruit just prior to abscission of corolla, x 8.

Etymology

The specific epithet (from the Latin, *palustris*, meaning swampy or marshy) refers to the habitat in which this species is found.

Distribution and Conservation Status

Known from a few sites in southern Victoria, from near the South Australian border to around Bairnsdale in the east, and in eastern Tasmania. The species is regarded as threatened and listed on Schedule 2 of the Flora and Fauna Guarantee (Victorian Government 1996). Most populations probably consist of few individuals as the principle method of reproduction appears to be vegetative in the form of an extensive rhizome system. The species is confined to swamps or winter-wet grasslands, and, while a few of the populations are in biological reserves, many are on uncommitted public land, such as rail reserves, or on private land. Doubtless it was more common prior to widespread vegetation clearance and swamp drainage of the Victorian lowland plains. The Risk Code (*sensu* Briggs & Leigh 1996) for *B. palustris* is assessed at 3RCi.

Habitat

Bracteantha palustris has been recorded exclusively in or adjacent to areas prone to inundation. The species is found in permanent swamps, winter-wet grasslands and swampy riparian vegetation. A tree canopy is absent from most sites in which it occurs, although, at one site near Bairnsdale, it occurs in a swampy *Eucalyptus tereticornis* woodland. Commonly associated species include *Amphibromus neesii*, *Villarsia reniformis*, *Eryngium vesiculosum* and *Lepidosperma longitudinale*. In most Victorian localities the soils are cracking black clays. The species is found at altitudes below 500 m. Flowering: Nov-Mar; fruiting: Dec-Apr.

Representative Specimens (30 specimens examined)

Tasmania: The Friendly Beaches Road, Freycinet, 10 Feb. 1984, *A. Moscal* (HO); South Lagoon, near Longford, 18 Dec. 1986, *R.J. Fensham* (HO).

Victoria: Argyle H.S., Lake Mundi, 7 Nov. 1983, *D. Headlam* (MEL); Lower Glenelg River Area 2.5 miles (4 km) SE of Drik Drik P.O., 25 Jan. 1970, *A.C. Beauglehole 33395* (MEL); Fenced plot c.400 m SW of Snake Valley-Streatham Rd & Chepstowe-Pittong Rd junction, 12 Dec. 1996, *C. Flann 6 & N.G. Walsh* (MEL); Swamp north of Pearson's road, Gellion's Run, West of Hedley, 7 Jan. 1981, *N.H. Scarlett NS81-24* (MEL); Saplings Morass Flora and Fauna Reserve, 3 Oct. 1984, *A.C. Beauglehole 77696* (MEL).

Notes

Bracteantha palustris appears to be most closely related to *B. subundulata* and can be distinguished by the following characteristics. The aerial stems of *B. palustris* have sparse to mid-dense arachnoid hairs for 5–15 cm below the capitulum whereas the indumentum of *B. subundulata* is dense and extends all the way to the base. The apical portion of the abaxial surface of the bracts is smooth in *B. palustris* as opposed to scabrous in *B. subundulata*. Further, *B. palustris* tends to be taller (30–100 cm) than *B. subundulata* (to 45 cm) and the leaves are generally narrower, tending to lanceolate rather than oblanceolate, the common state in *B. subundulata*. *Bracteantha palustris* occurs exclusively in wetlands below 500 m, whereas *B. subundulata* is restricted to alpine and subalpine zones generally above c. 900 m.

Prior to it being recognised as a distinct taxon (Ross 1993, 1996) this species had been included in *Bracteantha subundulata* (formerly *Helichrysum acuminatum* DC). *Bracteantha palustris* has also been identified as a wetland form of *B. subundulata* in Tasmania.

Most specimens of *B. palustris* at HO had been determined as *B. bicolor* (Lindl.) A. Anderb. & L. Haegi (formerly *Helichrysum bicolor* Lindl.), but comparison of specimens at K regarded as types of *B. bicolor* show that it is part of the *B. bracteata* (Vent.) A. Anderb. & L. Haegi complex (as noted by Curtis 1963) or even synonymous with that species. *Bracteantha bracteata sens. lat.* is a polymorphic assemblage that occurs in all states and territories of Australia and requires revision. Jim. H. Willis had noted on one of the *B. palustris* specimens at MEL that that it differs from *B. bicolor* in its quite simple stems, rhizomic habit, non-scabrid foliage and narrower more acuminate bracts which are essentially the same features that distinguish *B. bracteata*.

Type specimens of *Helichrysum acuminatum* var. *angustifolium* DC. at MEL and G are incomplete (both lacking intact capitula) but in all other respects match, and are here referred to *B. palustris*.

Key to South-eastern Australian species of *Bracteantha*

The remainder of the Australian species were not included in this key as they have not yet been taxonomically resolved.

1. Rhizomatous perennials 2
1. Tap-rooted annuals or perennials 3
2. Arachnoid hairs on stem extending to base; tips of involucral bract scabrous ..... **B. subundulata**
2. Arachnoid hairs on stem extending 5–15 cm below capitulum; tips of involucral bract smooth ..... **B. palustris**
3. Involucral bracts white; florets orange; Tasmania and islands of Bass Strait (and possibly Wilsons Promontory) ..... **B. papillosa**
3. Involucral bracts and florets yellow; widespread 4
4. Leaves viscid, linear, to 0.4 cm wide ..... **B. viscosa**
4. Leaves not viscid, elliptic, to 3.0 cm wide ..... **B. bracteata**

Acknowledgments

This study was undertaken as the inaugural Jim Willis Student at the National Herbarium of Victoria (MEL). Roger Riordan (Cybec Pty Ltd) deserves thanks for instigating this studentship in memory of his friend Jim Willis. I am grateful to the curators at HO, NSW and K for the promptly arranged loans of specimens and/or photographs. I am particularly indebted to Peter Jobson (formerly NSW) and Don Foreman (Australian Botanical Liaison Officer at K) for responding to requests quickly. Thanks to John Eichler and James Turner for providing information on populations of *B. palustris* in the field. I also thank all those at MEL for being so generous with their time and knowledge in introducing me to the intricacies of life at a herbarium, especially Neville Walsh who also furnished the Latin description. I would also like to extend my appreciation to Thomas Brosch (MEL) for the illustration of *B. palustris*.

References

Briggs, J.D. & Leigh, J.H. (1996). 'Rare or threatened Australian plants' 1995 edn. (CSIRO Publishing, Collingwood).

Curtis, W.M. (1963). 'Student's Flora of Tasmania. Vol. 2.' (L.G. Shea, Government Printer, Tasmania).

Ross, J.H. (1993). 'A Census of the Vascular Plants of Victoria'. Ed. 4. (National Herbarium of Victoria, South Yarra).

Ross, J.H. (1996). 'A Census of the Vascular Plants of Victoria'. Ed. 5. (National Herbarium of Victoria, South Yarra).

Victorian Government. (1996). Schedule 2, 'Flora and Fauna Guarantee Act 1988.' (VGPO, Melbourne).